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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/767,355	01/28/2004	Amy E. Battles	200400322-1	4891

22879 7590 04/09/2007  
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EXAMINER
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LE, TUAN H

ART UNIT	PAPER NUMBER
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2622

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/09/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/767,355

Applicant(s)

BATTLES ET AL.

Examiner

Tuan H. Le

Art Unit

2622

– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

**Claims 1-5, 8-18, 21-25 are rejected under 35 U.S.C. 102(e) as being anticipated by White et al (U.S. Pat. 7,035,462 B2)**

Regarding **claim 1**, White et al discloses that a method for removing red-eye effect in a digital image (see White et al, Fig. 2), comprising:

detecting automatically at least one candidate red-eye region within the digital image, (see White et al, Fig. 2 step 108, wherein red-eye detection algorithm is run);

presenting the at least one candidate red-eye region to a user (see White et al, Fig. 3, column 6 lines 63-67, indicators 50a-50d, wherein corrected 50a-50d positions can be chosen for further red-eye correction); and

producing a modified digital image by performing red-eye removal in each candidate red-eye region that the user accepts (see White et al, Fig. 3, column 7 lines 3-7, wherein user highlights position for further red-eye correction and presses button 54, causing the red-eye correction algorithm automatically perform further correction), each

candidate red-eye region that the user rejects remaining unmodified, (see White et al, column 7 lines 3-24, wherein non-highlighted position is not further corrected).

As for **claim 2**, as previously mentioned in the discussion of claim 1, White et al discloses all of the limitations of the parent claim. In addition, White et al discloses saving the modified digital image, (see White et al, Fig. 2 step 126)

As for **claim 3**, as previously mentioned in the discussion of claim 1, White et al discloses all of the limitations of the parent claim. In addition, White et al discloses that a plurality of candidate red-eye regions (50a-50d) is detected within the digital image, (see White et al, Fig. 3).

As for **claim 4**, as previously mentioned in the discussion of claim 3, White et al discloses all of the limitations of the parent claim. In addition, White et al discloses that the plurality of candidate red-eye regions are presented to the user one at a time, (see White et al, Figs. 5a-5c, wherein a single indicator is representative of two eyes of a subject).

As for **claim 5**, as previously mentioned in the discussion of claim 3, White et al discloses all of the limitations of the parent claim. In addition, White et al discloses that the plurality of candidate red-eye regions are presented to the user simultaneously, (see White et al, Fig. 3, 50a-50d).

As for **claim 8**, as previously mentioned in the discussion of claim 1, White et al discloses all of the limitations of the parent claim. In addition, White et al discloses that an indication (a number) is provided that a selected candidate red-eye region is the Mth

candidate red-eye region of N total candidate red-eye regions in the plurality, (see White et al, column 9 lines 32-38, wherein a number is used to indicate a corresponding red-eye effect).

As for **claim 9**, as previously mentioned in the discussion of claim 1, White et al discloses all of the limitations of the parent claim. In addition, White et al discloses that presenting the at least one candidate red-eye region to a user comprises marking the at least one candidate red-eye region, (see White et al, column 9 lines 23-25, wherein an indicator or other distinctive mark can be employed to indicate a red-eye effect).

As for **claim 10**, as previously mentioned in the discussion of claim 9, White et al discloses all of the limitations of the parent claim. In addition, White et al discloses that wherein marking the at least one candidate red-eye region comprises enclosing the at least one candidate red-eye region within a geometrical figure, (see White et al, Fig. 3, Figs. 5a-5f, column 9 lines 27-33, wherein geometrical figure can be one of star, circle, diamond, triangle, or square).

As for **claim 11**, as previously mentioned in the discussion of claim 9, White et al discloses all of the limitations of the parent claim. In addition, White et al discloses that at least one icon (save V) accompanying a selected candidate red-eye region indicates how the user is to accept the selected candidate red-eye region, (see White et al, Fig. 7).

As for **claim 12**, as previously mentioned in the discussion of claim 9, White et al discloses all of the limitations of the parent claim. In addition, White et al discloses that at least one icon (cancel X) accompanying a selected candidate red-eye region

indicates how the user is to reject the selected candidate red-eye region, (see White et al, Fig. 7).

As for **claim 13**, as previously mentioned in the discussion of claim 1, White et al discloses all of the limitations of the parent claim. In addition, White et al discloses that an indication (highlight) is provided of whether the at least one candidate red-eye region has been accepted by the user, (see White et al, column 6 lines 64-67, wherein corrected red-eye defects are highlight for further/additional correction).

As for **claim 14**, as previously mentioned in the discussion of claim 1, White et al discloses all of the limitations of the parent claim. In addition, White et al discloses that presenting the at least one candidate red-eye region to a user includes zooming in to show an enlarged view of a selected candidate red-eye region, (see White et al, Fig. 6, Fig. 7, wherein candidate red-eye region is enlarged).

As for **claim 15**, as previously mentioned in the discussion of claim 14, White et al discloses all of the limitations of the parent claim. In addition, White et al discloses that the enlarged selected candidate red-eye region is automatically centered on a display (74), (see White et al, Fig. 6, Fig. 7, wherein candidate red-eye region is enlarged in a center of a display).

As for **claim 16**, as previously mentioned in the discussion of claim 1, White et al discloses all of the limitations of the parent claim. In addition, White et al discloses that all candidate red-eye regions are accepted simultaneously, (see White et al, column 7 lines 14-15, wherein user can select all corrected red-eye positions to be further corrected).

Regarding **claim 17**, White et al discloses an apparatus, (see White et al, Fig. 1), comprising:

- a memory (20) to store a digital image;
- red-eye detection logic (embedded in DSP 22) to detect automatically at least one candidate red-eye region in the digital image, (see White et al, column 6 lines 15-33, wherein red-eye detection algorithm is run);
- a display (24) on which to present the at least one candidate red-eye region to a user;
- a user interface (48) by which the user indicates whether to accept the at least one candidate red-eye region; and
- red-eye removal logic (embedded in DSP 22) to produce a modified digital image by performing red-eye removal in each candidate red-eye region that the user accepts, each candidate red-eye region that the user rejects remaining unmodified, (see White et al, column 6 lines 15-33, wherein red-eye correction is performed).

As for **claim 18**, as previously mentioned in the discussion of claim 17, White et al discloses all of the limitations of the parent claim. In addition, White et al discloses that an imaging module (14) to convert an optical image to the digital image, (see White et al, Fig. 1);

As for **claim 21**, as previously mentioned in the discussion of claim 17, White et al discloses all of the limitations of the parent claim. In addition, White et al discloses that the user interface (image display 24) is configured to zoom in to show an enlarged

view of a selected candidate red-eye region, (see White et al, Fig. 1, Fig. 6, Fig. 7, wherein candidate red-eye region is enlarged).

As for **claim 22**, as previously mentioned in the discussion of claim 21, White et al discloses all of the limitations of the parent claim. In addition, White et al discloses that the user interface (image display 24) is further configured to center the enlarged selected candidate red-eye region on the display (74), (see White et al, Fig. 1, Fig. 6, Fig. 7, wherein candidate red-eye region is enlarged in a center of a display).

As for **claim 23**, as previously mentioned in the discussion of claim 17, White et al discloses all of the limitations of the parent claim. In addition, White et al discloses that the apparatus is one of a digital camera, a digital camcorder, a personal computer, a workstation, a notebook computer, a laptop computer, and a personal digital assistant, (see White et al, column 4 lines 43-50, wherein the apparatus can be digital cameras, PDA, cellular phones, computer, digital camcorders).

Regarding **claim 24**, White et al discloses an apparatus, (see White et al, Fig. 1), comprising:

means (frame memory 20) for storing a digital image;

means (program embedded in DSP 22) for automatically detecting at least one candidate red-eye region in the digital image, (see White et al, column 6 lines 15-33, wherein red-eye detection algorithm is run);

means (image display 24), wherein it is a LCD) for presenting the at least one candidate red-eye region to a user;



means (user interface 48, wherein a four-direction switch is used) for the user to indicate whether to accept the at least one candidate red-eye region; and

means (program embedded in DSP 22) for producing a modified digital image by performing red-eye removal in each candidate red-eye region that the user accepts, each candidate red-eye region that the user rejects remaining unmodified (see White et al, column 6 lines 15-33, wherein red-eye correction is performed).

As for **claim 25**, as previously mentioned in the discussion of claim 24, White et al discloses all of the limitations of the parent claim. In addition, White et al discloses means (14) for converting an optical image to the digital image, (see White et al, Fig. 1);

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 6-7 and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over White et al (U.S. Pat. 7,053,462).**

As for **claim 6**, as previously mentioned in the discussion of claim 5, White et al discloses all of the limitations of the parent claim. In addition, White et al discloses that a first pair of opposing directional controls (76) is used to select a particular candidate red-eye region, (see White et al, Fig. 7).

However, White et al does not disclose that a second pair of opposing directional controls is used to perform one of acceptance and rejection of the particular candidate red-eye region.

On the other hand, White et al discloses ACCEPT, REJ. buttons (see White et al, Fig. 6) and a second pair of opposing directional controls (78) for selecting/indicating/modifying a level of correction for a selected particular eye color defect, (see White et al, Fig. 8, column 11 lines 39-42).

Therefore, it would have been obvious to one of ordinary skills in the art at the time the invention was made to swap the functions of the buttons and the second pair of opposing directional controls in order to form a four-way switch dedicated to red-eye correction because such swapping brings more convenience and effective control to users who are familiar with a four-way switch navigation.

As for **claim 7**, as previously mentioned in the discussion of claim 6, White et al discloses all of the limitations of the parent claim. In addition, White et al discloses that the first pair (76) of opposing directional controls comprises horizontal directional controls, (see White et al, Fig. 7) and the second pair (78) of opposing directional controls comprises vertical directional controls, (see White et al, Fig. 8).

As for **claim 19**, as previously mentioned in the discussion of claim 17, White et al discloses all of the limitations of the parent claim. In addition, White et al discloses that the user interface (48) comprises a first pair (76) of opposing directional controls to select a particular candidate red-eye region (see White et al, Fig. 7).

However, White et al does not disclose that a second pair of opposing directional controls is used to perform one of acceptance and rejection of the particular candidate red-eye region.

On the other hand, White et al discloses ACCEPT, REJ. buttons (see White et al, Fig. 6) and a second pair of opposing directional controls (78) for selecting/indicating/modifying a level of correction for a selected particular eye color defect, (see White et al, Fig. 8, column 11 lines 39-42).

Therefore, it would have been obvious to one of ordinary skills in the art at the time the invention was made to swap the functions of the buttons and the second pair of opposing directional controls in order to form a four-way switch dedicated to red-eye correction because such swapping brings more convenience and effective control to users who are familiar with a four-way switch navigation.

As for **claim 20**, as previously mentioned in the discussion of claim 19, White et al discloses all of the limitations of the parent claim. In addition, White et al discloses that the first pair (76) of opposing directional controls comprises horizontal directional controls, (see White et al, Fig. 7) and the second pair (78) of opposing directional controls comprises vertical directional controls, (see White et al, Fig. 8).

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

**Hardeberg (U.S. Pat. 6,728,401)** discloses a system of correcting artifacts of a color image wherein image capture circuitry captures the color image and image processing circuit identifies and corrects artifacts in the color image.

**Russon et al (U.S. Pat. 7,177,449)** discloses an image correction system comprises a detection application accessible by a processor and adapted to identify a viewing direction of at least one eye of a subject within an image.

**Lawton et al (U.S. Pat. 5,990,901)** discloses an automatic application of digital image editing effects to a selected object in a digital image. Attributes of the object to be edited are interactively registered with the corresponding attributes in an abstract model of the type of object. An editing effect is then automatically applied to the selected object, using constraints determined by the properties of the model and the registered attributes.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan H. Le whose telephone number is (571) 270-1130. The examiner can normally be reached on M-Th 7:30-5:00 F 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David L. Ometz can be reached on (571) 272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2622

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Tuan Le  
April 2, 2007.



DAVID OMETZ  
SUPERVISORY PATENT EXAMINER